Topic 11: *Urinary Continence of Older Adults*

Competencies

1. Identify the prevalence of urinary incontinence and the risk factors associated with involuntary loss of urine.
2. Identify the causes of transient incontinence.
3. Identify the types of persistent urinary incontinence, with associated signs and symptoms.
4. Discuss assessment options for urinary incontinence.
5. Discuss treatment options for urinary incontinence.
6. Assess the appropriate use of indwelling urinary catheters.

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Content Outline

1. Identify the prevalence of urinary incontinence and the risk factors associated with involuntary loss of urine.

Urinary incontinence is defined as involuntary loss of urine sufficient to be a problem to the older person.

Over 13 million Americans are affected by urinary incontinence. Approximately 15% to 30% of noninstitutionalized older persons are affected, including 19% of men and 39% of women. In nursing facilities, 50% or more of the patients are incontinent, and 30% of this population also experience fecal incontinence.

Prevalence of urinary incontinence does increase with age, but is not a normal part of the aging process. It is the second leading risk factor for institutionalization.

Direct costs of urinary incontinence in community-dwelling older adults are estimated to be over $7 billion annually. In long-term-care nursing facilities, the annual estimated cost is $3.3 billion.

Risk factors associated with incontinence include immobility, impaired cognition, medications, morbid obesity, smoking, fecal impaction, delirium, environmental barriers, high-impact physical activities, diabetes, stroke, estrogen depletion, pelvic muscle weakness, and childhood nocturnal enuresis. Low fluid intake (especially water) or excess caffeine or alcohol, which have a diuretic effect, may cause bladder irritation leading to increased urgency.

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Content Outline

2. Identify the causes of transient incontinence. (DIAPPERS)*

Delirium
Infection
Atrophic urethritis/vaginitis
Pharmaceuticals
Psychological
Excess excretion
Restricted mobility/restraints
Stool impaction

3. Identify the types of persistent urinary incontinence, with associated signs and symptoms.

A. *Urge incontinence* is associated with a strong urge to void. An overactive detrusor muscle causes excessive involuntary bladder contraction. Various neurological conditions, including stroke, suprasacral spinal cord lesions, and multiple sclerosis are associated with this condition.

B. *Stress incontinence* is associated with actions that increase intra-abdominal pressure, such as coughing, sneezing, bending, lifting, or laughing. The cause is pelvic muscular weakness or urethral hypermotility.

C. *Overflow incontinence* occurs when the bladder muscle is overdistended. Overflow incontinence may present

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*Resnick, N. M. & Yalla, S. V. (1985). "Current Concepts: Management of Urinary Incontinence in the Elderly," *The New England Journal of Medicine,* 313; pp. 800–805.

with stress or urge symptoms. The cause is low tone bladder muscle, or a bladder outlet or urethral obstruction leading to overdistenion and overflow.

Conditions associated with overflow incontinence include drug side effects, radical pelvic surgery, diabetic neuropathy, low spinal cord injury, and benign prostatic hyperplasia (BPH).

D. *Functional incontinence* occurs when a physical or psychological impairment impedes continence status despite a competent urinary system.

4. Discuss assessment options for urinary incontinence.

A. Good history (i.e., medications that contribute to incontinence) and bladder record often yield information sufficient to attempt intervention.

B. Referral to urinary incontinence nurse, urologist, or gynecologist for workup. Bedside cystometrogram is one assessment option.

C. Attempt therapeutic trial with behavioral and/or pharmacological treatments, to determine effectiveness.

5. Discuss treatment options for urinary incontinence.

Treatment options must be individualized for each person. See example in the Instruments and Scales section.

A. *Behavioral Therapies*
- Scheduled toileting (fixed interval every 2–3 hours).
- Bladder training (progressively longer intervals).

- Habit training (where urine volume varies over time, i.e., with diuretics).
- Prompted voiding (scheduled toileting with positive reinforcement, praise, and encouragement to be assisted or stay dry).
- Kegel (pelvic muscle) exercises (levator ani and pelvic floor muscle contractions, with or without electromyographic biofeedback or vaginal cones).
- Electrical stimulation treatment (with implants).
- Avoidance of bladder irritants (caffeine, alcohol, Nutrasweet™).
- Rehydration (half the body weight in pounds is the number of ounces of liquid needed per day).

B. *Pharmacological Treatments*
- Bladder wall: Anticholinergics (propantheline, dicyclomine, oxybutynin), tricyclics (imipramine), calcium channel blockers (nifedipine, terodiline), cholinergics for retention (tend to be unsuccessful).
- Urethra: Alpha-adrenergics (phenylpropanolamine, pseudoephedrine), estrogen, alpha-blockers (prazosin, terazosin), central relaxants (baclofen, dantrolene, diazepam).

C. *Surgical*
- Artificial urinary sphincters to improve sphincteric function (with pump, requires competent client).
- Prostatectomy or TURP (for prostatic obstruction).
- Dilation of urethral stricture.
- Circumcision (for phimosis or balanitis).

- Penile reconstruction (in trauma or cancer cases).
- Urinary diversion.
- Suprapubic catheter (the better long-term indwelling catheter).

D. *Equipment and Devices*
- Absorbent products (diapers ["briefs"], gels, pads, cone-shaped absorbents for men, reinforced-fit undergarments for high volume).
- Skin care (nonalcohol cleansers, waterproof barriers).
- Devices and urinals (male and female for the immobilized or patients with compromised skin integrity).
- External catheters (condom type for men).
- Indwelling urethral catheters (only if surgery and intermittent catheterization have failed, or there is skin breakdown or frailty of the patient such that even movement is painful).
- Intermittent catheterization (the better alternative for obstruction with overflow).

6. Assess the appropriate use of indwelling urinary catheters.

A. *Indwelling catheters are indicated for:*
- Monitoring of acutely ill patients.
- Management of terminally or severely ill patients.
- Urinary retention not manageable by other means.
- Management of urinary incontinence in persons with Stage III or IV pressure ulcers.

B. *Indwelling catheters are contraindicated for:*
   - Management of urinary incontinence not associated with full-thickness pressure ulcers.
   - Urinary retention that can be otherwise managed (i.e., with clean intermittent catheterization).

C. *Risks of indwelling catheters include:*
   - Urinary tract infections.
   - Bacteruria.
   - Trauma to the urethra.

   Indwelling catheters increase morbidity risks; other complications include pain, obstruction, urethral erosion, stones, urethritis, fistula, and hematuria.

Instruments/Scales

Sample Bladder Record

NAME: _____

DATE: _____

INSTRUCTIONS: Place a check in the appropriate column next to the time you urinated in the toilet or when an incontinence episode occurred. Note the reason for the incontinence and describe your liquid intake (for example, coffee, water) and estimate the amount (for example, one cup).

Time interval	Urinated in toilet	Had a small incontinence episode	Had a large incontinence episode	Reason for incontinence episode	Type/amount of liquid intake
6–8 a.m.					
8–10 a.m.					
10–noon					
Noon–2 p.m.					
2–4 p.m.					
4–6 p.m.					
6–8 p.m.					
8–10 p.m.					
10–midnight					
Overnight					

No. of pads used today: _____ No. of episodes: _____

Comments: _____

_____

_____

U.S. Department of Health & Human Services Public Health Service, Agency for Health Care Research and Quality (AHRQ) formerly (AHCPR), Publication No. 96-0682, March 1996.

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Case Study

Ms. B is a 76-year-old widow. Her history is significant for diabetes mellitus, coronary artery disease, osteoarthritis, and a past history of a total abdominal hysterectomy. She is five days status post coronary artery bypass. Her postoperative course has been uneventful except for fluid retention, as evidenced by pedal edema. Tomorrow she will be discharged to a cardiac short-term rehabilitation center. Her baseline ambulatory status is a steady gait with a quad-cane. Medications include:

ASA 81 mg PO OD
Metformin 500 mg PO BID with meals
Micronase 5 mg PO BID
Lasinopril 10 mg PO BID
Lasix 40 mg PO Q 12H
KCL 20 meq PO Q 12H

As the evening nurse, you are reviewing her discharge instructions. Ms. B asks, "Do you think I will still need these diapers when I get home? I never had problems holding my water before." Use your knowledge of incontinence in older people to formulate your response.

Experiential Activities/ Clinical Experiences

1. Students could be assigned to older adults in a community setting or health-care facility. They should evaluate the clients for risk of urinary incontinence and develop a care plan for clients experiencing urinary incontinence.
2. During a 6- to 8-hour time period, use the bathroom every 45 minutes.

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Evaluation Strategies

1. Ms. Z states that she has trouble holding her urine at times. Over the past year, she has been using maxi pads to control the leaking. She is 75 years old, and her history is significant for chronic obstructive pulmonary disease and osteoarthritis. You begin client education with all of the following *except:*

a. Informing her that she is one of about 13 million people who suffer from incontinence.
b. Reviewing possible risk factors, including obesity, smoking, impaired mobility, pelvic muscle weakness, and medications.
* c. Telling her the leaking will inevitably worsen with age.
d. Explaining the purpose of a bladder diary.

2. All of the following are causes for transient incontinence *except:*

a. Urinary tract infection.
* b. Weakened pelvic muscle.
c. Diuretics.
d. Stool impaction.

3. Mr. A reports that he has had difficulty initiating a urine stream. Recently, he has been leaking urine, "like a dripping faucet." You believe he may have:

a. Stress incontinence.
b. Functional incontinence.
c. Urge incontinence.
* d. Overflow incontinence.

Evaluation Strategies

4. You are the charge nurse of a nursing home unit. A new admission has arrived. Your initial assessment reveals an 80-year-old women with a status post right hip fracture. She has early-stage dementia and is confused. Her skin assessment reveals a right hip incision with staples that are clean, dry, and intact; a sacral stage II (5cm × 6cm) ulcer wit Duoderm intact; and bilateral heel redness. Her indwelling foley is draining quantity-sufficient clear yellow urine to a bedside drainage bag. Your plan of care will *not* include:

a. Frequent turning and positioning.
* b. Foley catheter care OD and change Q month.
c. Maintaining adequate fluid and caloric intake.
d. Duoderm dressing changes to sacral ulcer per protocol.
e. Discussing with the physician the possibility of discontinuing the foley catheter.

5. Your neighbor is a "young" 79-year-old woman with five grown children, twelve grandchildren, and one great-grandchild. She keeps busy with her housework, volunteering at an adult home, and taking bus trips to Atlantic City. She confides to you that, over the past few months, she has noticed that she leaks a little urine when she lifts up her 18-month-old great-grandchild. You question her more and find she occasionally leaks when she coughs or laughs. Her type of incontinence is *stress incontinence.* Treatment options available to her include:

* a. Pelvic floor exercises (Kegel's).
* b. Biofeedback.
* c. Vaginal weights/cones.

Evaluation Strategies

* d. Electrical stimulation.
* e. Alpha-adrenergic agonist (i.e., pseudoephedrine).
* f. Estrogen.
* g. Surgery.
* h. Pelvic organ support devices.

Resources

Beers, M., and Berkow, R. (2000). *The Merck Manual of Geriatrics* (3rd ed.). Whitehouse Station, NJ: Merck and Co.

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Geriatric Nursing. (1998, May).

Ham, R. J., and Sloane, P. D. (1997). *Primary Care Geriatrics: A Case Based Approach* (3rd ed.). New York: Moseby.

Johnson, V. Y., and Gary, M. A. (1995). Urinary Incontinence: A Review. *Journal of Wound, Ostomy and Continence Nursing, 22*(1), 8–16.

Maddox, G. et al. (Eds.). (2001). *The Encyclopedia of Aging* (3rd ed.). New York: Springer Publishing Company.

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Resnick, N. M. (1996). Geriatric Incontinence. *Urologic Clinics of North America, 23*(1), 44–74.

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U.S. Department of Health and Human Services. (1996). *Urinary Incontinence in Adults: Acute and Chronic Management* (AHCPR Publication No. 96–0686). Rockville, MD: U. S. Government Printing Office.

The following are valuable resources for both professionals and lay persons:

American Foundation for Urologic Diseases (AFUD)
300 West Pratt Street, Suite 401
Baltimore, MD 21201
1-800-828-7866

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Resources

Journal of Wound Ostomy and Continence Nursing (WOCN)
11830 Westline Industrial Drive
St. Louis, MO 63146-3318
1-800-453-4351

National Association for Continence (NAFC)
P.O. Box 8310
Spartanburg, SC 29305-8310
1-800-BLADDER

Simon Foundation
P.O. Box 815
Wilmette, IL 60091
1-800-SIMON

Other Resources

"Incontinence on the Internet": www.incontinent.com